

ACC NR: AP6035759

(A, V)

SOURCE CODE: UR/0413/66/000/019/0130/0131

INVENTOR: Slavin, R. M.; Usakovskiy, V. M.; Babakhanov, Yu. M.; Lopyrev, V. V.

ORG: none

TITLE: Hermetic electric pump. Class 59, No. 186862. [announced by the All-Union Scientific Research Institute for Rural Electrification (Vsesoyuznyy nauchno-issledovatel'skiy institut elektrifikatsii sel'skogo khozyaystva)]

SOURCE: Izobreneniya, promyshlemnye obraztsy, tovarnyye znaki, no. 19, 1966, 130-131

TOPIC TAGS: насосная установка, fluid pump, hydraulic pump, electric motor

ABSTRACT: An Author Certificate has been issued for a hermetic electric pump consisting of a housing containing a pump and an electric-drive motor with an outer rotor and a female stator, the pump is cooled by a part of the fluid which is transferred from the discharge to the suction nozzle. To simplify design and intensify cooling, the pump's working members are located on the surface of the rotor or of the rotor and the electric-motor housing, and the winding of the stator is designed for the direct transfer of the cooling flow through the stator's slots. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 26Apr65/

Card 1/1

UDC: 621.67-83

BLYUMBERG, V.A., inzh.; BABAKHANOV, Yu.M., inzh.

Drying of electric machinery windings by means of electric currents. Vest.elektroprom. 33 no.1:31-32 Ja '62. (MIRA 14:12)  
(Electric insulators and insulation)

PRIVEZENTSEV, V.A., doktor tekhn. nauk; SLAVIN, R.M., kand. tekhn. nauk; KHOLODNYY, S.D., kand. tekhn. nauk; BABAKHANOV, Yu.M., inzh.

Study of polychlorovinyl insulation of winding wires of water cooled electric motors. Elektrotehnika 36 no.8: 4-9 Ag '64. (MIRA 17:9)

S/081/62/000/018/044/059  
B160/B186

AUTHORS: Mamedaliyev, Yu. G., Mamedaliyev, G. M., Aliyev, S. M.,  
Babakhanova, T. A.

TITLE: Polymerization of unsaturated hydrocarbons from 160-190°C  
fractions of liquid pyrolysis products in the presence of  
isopropylbenzene hydroxide

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 18, 1962, 501,  
abstract 18P48 (Azerb. khim. zh., no. 5, 1961, 41-46  
[Summary in Azerb.]

TEXT: Polymerization of unsaturated hydrocarbons of liquid pyrolysis  
products (160-190°C fraction) was carried out in the presence of an  
initiator (isopropylbenzene hydroxide, benzoyl peroxide, etc.). The  
relationship of the yield (13-30% by weight) and of the properties of  
the polymer ( $[\eta]$ ,  $d_4^{20}$ , melting point) to the initiator concentration  
(1-4% by weight), the duration of the experiment (70-125 hrs) and the  
temperature (82, 94°C) was ascertained. The polymer yield is shown to  
grow with an increase in the initiator concentration, the duration of the  
Card 1/2

Polymerization of unsaturated ...

S/061/62/000/018/044/059  
B160/B186

reaction and a rise of temperature. An investigation was also made into the copolymerization (initiator - isopropylbenzene hydroperoxide 2%, 94°C, 100 hrs) of unsaturated compounds of the 160-190°C fraction and styrene at different weight ratios of the components. When the weight ratio of pyrolysis products and styrene is 20:80 the copolymer yield is 93% (melting point 120-125°C). [Abstracter's note: Complete translation.]

Card 2/2

**BARAKHANYAN, A. B.**

Frequency controllers in the electric power system. Dokl. AN Arm. SSR  
9 no.4:163-167 '48.  
(MIRA 9:10)

1. Laboratoriya Elektrotehniki Akademii nauk Armyanskey SSR, Yerevan.  
Predstavlene A.G. Iosifyanem.  
(Electric controllers)

BABAKHANYAN, A.V.

Method for evaluating frequency changes in the electric power system. Dokl. AN Arm. SSR 10 no.5:209-218 '49. (MLRA 9:10)

1. Laboratoriya Elektrotehniki Akademii nauk Armyanskoy SSR, Yerevan. Predstavleno A.G. Iosif'yanom.  
(Electric power distribution)

BABAKHANYAN, A. B.

23179 Raspredeleniye moshchnostipereennogo toka, perelavayemoy po parallel'nykh tsepyam. Izvestiya (Akad. nauk arm. sssr), fiz.- Matem., Estestv. i Tekhn. Nauki, 1949, No. 1, c. 9-19. -- Rezyume na arm. yaz. -- Bibliogr: 5 Nazv.

SO: LETOPIS' NO. 31, 1949

BABAKHANYAN, A. B.

23178 Grafoanaliticheskoye resheniye voprosa o rasprenenii moshchnosti  
peremennogo toka v parallel'nykh neidentichnykh tsepyakh elektroperedachi.  
Izvestiya (Akad. nauk arm. sssr), Fiz-matem., estestv. i tekhn. nauki,  
1949, No. 1, c. 21-27. Rezyuome na arm. Yaz.

SO:LETOPIS' NO. 31, 1949

BABAKHANYAN, A. B.

BABAYHANYAN, A. B. "On the problem of the automatic unloading of electric power systems",  
Doklady (Adad. nauk Arm. SSR), Vol. X, No. 3, 1949, p. 115-20, (Resume in Armenian),  
Bibliog: 9 items.

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1949).

BABAKHANYAN, A.B.

Graphic analytical method for determining dynamics of frequency change in electric power systems. Izv. AN Arm. SSR. Ser. FMT nauk 4 no.6:441-451 '51. (MLRA 9:8)

1. Laboratoriya elektrotehniki Akademii nauk Armayskoy SSR.  
(Graphic methods) (Electric networks)

DAVTYAN, G.S.; MINASYAN, A.K.; BABAKHANYAN, M.A.

Utilization of the bactericidal action of erythromal lamps for  
sterilizing nutritional solutions in hydroponics. Izv. AN Arm.  
SSR. Biol. nauki 16 no.9:95-97 S'63 (MIRA 17:7)

1. Laboratoriya agrokhimii AN Armyanskoy SSR.

10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

MAMEDALIYEV, Yu.G.; BABAKHANOV, R.A.

Synthesis of iodalkylbenzenes by catalytic alkylation of iodobenzene  
with olefins. Uch. zap. AGU no.1:19-24 '57. (MIRA 10:12)  
(Alkylation) (Benzene) (Olefins)

VASIL'YEV, V.I., inzh.; BABAKHIN, A.I., inzh.

Experience in the waterproofing subway tunnels. Put' 1 put. khoz.  
8 no.9:28-31 '64. (MIRA 17:11)

PAVLOV, M.S.; DEMESHKO, G.V.; BABAKHIN, N.Ya.; BLOKHINA, T.F.; GRISHINA, A.T.; SOKOL'SKIY, I.F., red.; PERSON, M.N., tekhn. red.; TOKER, A.M., tekhn. red.

[Workbench of a radio serviceman] Rabochee mesto sborshchika i montazhnika radioapparatury. Moskva, Vses. uchebno-pedagog. izd-vo Proftekhizdat, 1961. 210 p. (MIRA 14:11)

1. Normativno-issledovatel'skiy otdel Tsentral'nogo tekhnologicheskogo byuro (for Pavlov, Demeshko, Babakhin, Blokhina, Grishina). (Radio industry)

BEDRINTSEV, K.N., kand.ekonom.nauk; KORZHENEVSKIY, N.L., doktor geograf. nauk; KOROVIN, Ye.P., doktor biolog.nauk; SHUVALOV, S.A., kand. geologo-mineral.nauk; YAKHONTOV, V.V., prof.; BELUZHEV, A.G.; GERKUZEN, S.Kh.; PAL'MIN, B.A.; KLEYNNUNBERG, G.Ye.; BARANOVSKIY, M.D.; DOROSHEV, N.T., mladshiy nauchnyy sotrudnik; SCHASTNEV, N.V.; TSAPENKO, N.G.; BABAKHODZHAYEV, A.Kh., red.; SUKHANOV, P.P., tekhn.red.  
(MIRA 13:7)

[Uzbekistan; economic-geographical features] Uzbekistan; ekonomiko-geograficheskaya kharakteristika. Tashkent, 1950. 302 p.

1. Akademiya nauk Uzbekskoy SSR, Tashkent. Institut ekonomiki.
  2. Chlen-korrespondent AN Uzbekskoy SSR (for Korzhenevskiy). 3. Daystvitel'nyy chlen AN Uzbekskoy SSR (for Korovin). 4. Institut ekonomiki AN Uzbekskoy SSR (for Doroshev).
- (Uzbekistan--Economic conditions)

PIKULIN, Mikhail Grigor'yevich, doktor istor. nauk; BABAKHODZHAYEV, A.Kh.,  
doktor istor. nauk, otv. red.; DESYATNIK, F.M., red. izd-va; KARA-  
BAYEVA, Kh.U., tekhn. red.

[Developing the national economy and culture of Afghanistan, 1955-  
1960] Razvitie natsional'noi ekonomiki i kul'tury Afganistana 1955-  
1960. Tashkent, Izd-vo Akad. nauk Uzbekskoi SSR, 1961. 149 p.

(MIRA 14:8)

1. Zamestitel' direktora Instituta vostokovedeniya AN Uzbekskoy SSR  
(for Pikulin)

(Afghanistan--Economic conditions) (Afghanistan--Culture)

BABAKHOLZHAJEV, M.

The part played by machine-tractor station tractor drivers in strengthening the alliance between the laborer and the collective farmer. Trudy Tadsh, subject 1157-172 159. (1955, p. 2)  
(New tractor stations)

BABAKHODZHAYEV, N. K.

Dissertation: "Hygienic Evaluation of Edible Cottonseed Oil." Cand Med Sci,  
Second Moscow State Medical Inst ineni I. V. Stalin, Moscow, 14 Jun 54.  
(Meditsinskiy Rabotnik, Moscow, 4 Jun 54)

SO: SUM 318, 23 Dec. 1954

BABAKHODZHAYEV, N.K.

Secretory and excretory functions of the stomach in chronic  
alcoholism. Terap.arkh. 32 no.10:84-90 '60. (MIRA 14:1)

1. Iz kafedry fakul'tetskoy terpii (zav. - prof. A.G. Gukasyan)  
sanitarno-gigiyenicheskogo fakul'teta I Moskovskogo ordena Lenina  
meditsinskogo instituta imeni I.M. Sechenova.  
(ALCOHOLISM) (STOMACH)

BABAKHODZHAYEV, N. K.

Card Med Sci - (diss) "State of the function of the stomach and pancreas in chronic alcoholism." Minsk, 1961. 19 pp; (Minsk State Med Inst); 250 copies; price not given; (KL, 10-61 sup, 224)

RABAKHODZHAYEV, S.

Geological and petrographic characteristics of magmatic  
rocks in the Varzob-Bolo River Basin. Izv.Otd.est.nauk AN  
Tadsh.SSR no.12:41-58 '55. (MLRA 9:10)

1. Institut geologii AN Tadshikskoy SSR.  
(Varzob-Bolo Valley--Rocks, Igneous)

BABAKHODZHAYEV, S.H.

Some characteristics of lamprophyres in the Varsob-Bolo Valley  
on the southern slope of the Gissar Range. Trudy AN Tadsh. SSR  
56:75-95 '56. (MLRA 10:6)

(Varsob-Bolo Valley--Lamprophyres)

**BABAKHODZHAYEV, S.M.**

Some characteristics of pegmatites of the Takob River basin  
(southern slope of the Gissar Range). Izv. Otd. est. nauk AN  
Tadsh.SSR no.19:27-34 '57. (MIRA 11:8)

1. Institut geologii AN Tadzhikskoy SSR,  
(Takob Valley--Pegmatites)

BABAKHODZHAYEV, S.M.

Geology of new ore deposits in the Takob Basin. Trudy AN Tadzh.  
SSR 77:255-281 '57.

(Varzob Valley--Ore deposits)

(MIRA 11:9)

BABAKHODZHAYEV, S.M.

Age of igneous complexes in the Obi-Safed and Ios Basins  
(southern slope of the Gissar Range). Trudy AN Tadzh.SSR 104  
no.1:21-25 '59. (MIRA 15:4)

1. Institut geologii AN Tadzhikskoy SSR.  
(Gissar Range--Rocks, Igneous) (Geological time)

BARAKHODZHAYEV, S.M.

Geological and petrographic characteristics of magmatic complexes  
in the Obi-Safed and Ios Basins (Southern Gissar). Trudy AN Tadzh.  
SSR 118:73-92 '59.

(Gissar Range--Rocks, Igneous)

(MIRA 13:10)

BABAKHODZHAYEV, S.M.

Age of the dikes of diabasic porphyrites and felsites in the  
Nizhniy Gudas ore-bearing area (eastern Karamazar). Izv. Otd.  
geol.-khim. i tekhn. nauk AN Tadzh. SSR No.1:93-100 '61.

(MIRA 14:9)

1. Institut geologii AN Tadjhikskoy SSR,  
(Tadjikistan--Dikes (Geology))

BABAKHODZHAYEV, S.M.

Dike rocks of intrusive complexes of the Takob basin and some characteristics of their metallogeny (southern Gissar Range).  
Trudy Inst.geol. AN Tadzh.SSR 4:175-189 '61. (MIRA 15:12)

1. Institut geologii AN Tadjhikskoy SSR.  
(Takob Valley—Dikes (Geology))

BABAKHODZHAYEV, S.M.

Geologic and petrographic characteristics of intrusive complexes  
in the eastern part of the Kara-Mazar Mountains. Trudy Inst.geol.  
AN Tadzh.SSR 6:21-41 '62.

(Kara-Mazar Mountains--Rocks, Igneous)

(MIRA 16:5)

BABAKHODZHAYEV, S.M.; BARATOV, R.B.; MORCZOV, S.A.; NOVIKOVA, T.I.

In memory of M.Kh. Khamidov; with a supplementary list of works  
by M.Kh. Khamidov. Trudy Inst. geol. AN Tadzh. SSR 8:5-12 '64.  
(MIRA 17:11)

BABAKHODZHAYEV, S.M ; SUSHKOV, V.I.; KOLESNICHENKO, V.A.

Geologic and petrographic characteristics of the Upper Paleozoic  
volcanic sedimentary formations of the eastern Karamazar Mountains.  
Trudy Inst. geol. AN Tadzh. SSR 8:132-158 '64.

(MIRA 17:11)

BARATOV, R.B., *otv. red.*; KUKHTIKOV, M.M., *zam. otv. red.*;  
BABAKHODZHAYEV, S.M., *red.*; BABKOV, K.V., *red.*;  
DZHALILOV, M.R., *red.*; ZAKHAROV, S.A., *red.*; NOVIKOVA,  
T.I., *red.*; PANKRATOV, P.A., *red.*; REYMAN, V.M., *red.*

[Problems of the geology of Tajikistan; festschrift for  
the 23d Session of the Geological Congress in Delhi]  
Problemy geologii Tadzhikistana; *stornik, posviashchennyi*  
XXII sessii Mezhdunarodnogo geologicheskogo kongressa v  
Delhi. Dushanbe, AN Tadzhik SSR, 1964. 290 p.

(MIRA 18:3)

1. Akademiya nauk Tadzhikskoy SSR, Dushanbe. Institut  
geologii.

RAJAHMUNZHAYEV, S.M.; RAJIL', V.P.

Geo-characteristics of the distribution of mineralization in the  
volcanic formations of the Karumalar Mountains. Urb. geol. zhur.  
no. 1:33-40 1965. (MIRA 18, 5)

1. Institut geologii g. Dushanbe Gosudarstvennogo geologicheskogo  
Komiteta SSSR.

"APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102810006-3

APPROVED FOR RELEASE: 06/06/2000

CIA-RDP86-00513R000102810006-3"

DEMIDOV, Konstantin Nikolayevich; BARAKHOVA, N.Kh., redaktor; PAVLICHENKO,  
M.I., tekhnicheskij redaktor

[Fresh-water fish for aquariums] Presnovodnye akvariumnye ryby. 2-e,  
dop. izd. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1955. 151 p.  
(Aquariums) (MLRA 9:2)

DUKALOV, Ivan Aleksandrovich; KEDROV, Valentin Konstantinovich;  
~~BABAKHOVA, N.Kh., red.~~; GLOTOVA, M.I., tekhn.red.

[Controlling barrenness in cows] Bor'ba s ialovost'iu  
korov. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1959.  
29 p. (MIRA 12:12)

(Cows) (Sterility in animals)

BAREYEV, Yemel'yan Savel'yevich. Prinsipali uchastiye: ZHELDAKOV, M.Ye.,  
geolog; KARLOVA, I.N., geolog. BARAKHOVA, N.Kh., red.;  
MARINYUK, M.V., tekhn.red.

[Local raw materials for building materials; mineral raw material  
resources in Rostov Province] Mestnoe syr'e dlia stroitel'nykh  
materialov; mineral'nye syr'evye resursy Rostovskoi oblasti.  
Rostov, Rostovskoe knizhnoe izd-vo, 1960. 346 p.

(MIRA 14:2)

(Rostov Province--Mines and mineral resources)  
(Rostov Province--Building materials)

ZAKIYEV, Khristofof Yakovlevich; BABAKHOVA, N.Kh., red.; BOROVINSKAYA,  
L.M., tekhn. red.

[The queen of cold; from a geographer's diary] Koroleva kholoda; iz dnevnika geografa. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1961. 93 p. (MIRA 17:4)

*B. I. I., 85*

BALMASOV, Yevgeniy Yakovlevich; OBRAZTSOV, K.I., retsenzent; GRANAT, S.S.,  
retsenzent; BABAKIN, B.I., red.; BARANOV, N.A., red.; SARMATSKAYA,  
G.I., red.izd-va; SHITS, V.P., tekhn.red.

[Automatic control of processes in the manufacture of woodpulp  
and paper] Avtomaticheskoe regulirovanie protsessov tselliulozno-  
buzhazhnogo proizvodstva. Moskva, Gosleshumizdat, 1955. 248 p.  
(Woodpulp industry) (MIRA 11:6)  
(Paper manufacture) (Automatic control)

GUBENKO, A.B., doktor tekhnicheskikh nauk, laureat Stalinskoy premii;  
MIL'KEVICH, O.L., inzhener; BABAKIN, N.V., inzhener; MAZUR, M.V.,  
inzhener

Mechanical screw press for gluing wooden construction elements.  
Rats. i izobr. predl. v stroi. no.101:19-22 '55. (MLRA 8:10)

1. Tsentral'nyy Nauchno-issledovatel'skiy institut promyshlennyykh sooruzheniy (for Gubenko and Mil'kevich). 2. Industroyproyekt (for Babakin and Mazura)  
(Gluing) (Carpentry)

BABAKIN, V., inzh.

Should we repair the house? Zhil-komm. khoz. 13 no.2:28-29 '63.  
(MIRA 16:3)

1. Nachal'nik masterskoy No.3 instituta "Mosshilproyekt".  
(Apartment houses—Maintenance and repair)

BURKOV, G. (Murgan); SERGEYEV, M. (Izhevsk); BELOV, I. (Moskovskaya oblast');  
BABAKIN, Yu. (Dmitrov); BORSHCHOV, N. (poselok Kamenolomni,  
Nostovskaya oblast'); YEGOROV, I. (Chuvashskaya SSR)

Readers' letters. Pozh.delo 8 no.11:32 N '62. (MIRA 15:11)  
(Fire prevention)

CABANANAH, V.S.

29

Spots on red tanned leather. V. G. Babkina. *Izv. Inst. Khim. Nauch.-Issledovatel. Inst. Khabarovsk. Prov. 1932, No. 2, 27.* Two types of spots were investigated (1) spots of dark brownish and black color with a white aureole and a diam. of 0.25-2 mm., and (2) white spots with veins. The following cultures were sepd. from the infected spots: two varieties of yeast, a dry and a fat culture of *Aspergillus fumigatus*, *Aspergillus glaucus* and *B. mesentericus*. Expts. with the above cultures were successful and spots with the characteristics of the original spots were reproduced on non-infected leather, which was infected by contact with infected pieces of leather.

A. A. Buchtlouk

ASB 50A - METALLURGICAL LITERATURE CLASSIFICATION

СЕРКИНА, В.С.

Investigation of methods for the elimination of salt spots on call leather. V. G. Babakina and K. S. Kutukova. *Izvestia. Nauch.-Issledovatel. Inst. Kozhevennoi Prom.* Kharkov KuzN No. 4, 75 (1934).--Salt spots do not contain any microbes or specific microflora able to promote

the formation of spots on unaffected leather. The collagen fibers in the spots swell and lose the fibrillar structure. The spots are distinctly colored by bases. An amorphous, powdery and grainy substance is deposited on the spots, causing brittleness and hardness. Tissue showing salt spots gives a positive reaction for Ca and Fe<sup>+++</sup>. The reactions for fatty acids and hemoglobin deriva. are negative. The best preventives were found to be mixts. of 3% Na<sub>2</sub>CO<sub>3</sub> and 2% p-dichlorobenzene (of the weight of the NaCl). It should be applied in salting the hides. Calcined Na<sub>2</sub>CO<sub>3</sub> when added in 5% to the weight of the salt exercises the same protective action, although the hides become too dry. The hides should be kept at a temp. not exceeding 10°. A. A. Hochling

ASB-514 METALLURGICAL LITERATURE CLASSIFICATION

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99
---	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----

CHENSHI, V.S.

ca

29

Prevention of "rust spots" on calf skins and large hides.  
 V. G. Balakina and K. S. Kutukova. *Izvestia Nauch.-Issledovatel. Inst. Kozhevennoi Prom., Sbornik Rabot* No. 5, 1962 25(B341); Cf. C. I. 28, 7026. "Rust spots" on hides are the result of a development of the pink micrococci. This germ may originate in the hide, although it is found in some types of salt. The development of rusty spots can be checked by adding 2% naphthalene or 2% p-dichlorobenzene or 3% Na<sub>2</sub>CO<sub>3</sub> to NaCl used in the process. The temp. in hide storage should not exceed 18.  
 A. A. Bochtinsk

45N-55A METALLURGICAL LITERATURE CLASSIFICATION

CA BERNARD, J.

29

Microscopic control of raw hides. V. G. Babakina and K. S. Kutukova. *Tsentral. Nauch.-Issledovatel. Inst. Kuzbassnol Prom., Sbornik Rabot No. 7, 3-25 (1955).*

Samples are fixed in a 10% formalin soln. during 3 days at a temp. of 28-30° or by heating for 5 min. in a 10% formalin soln., transferring to a 20% formalin soln., and heating again for 5 min. The fixed samples are washed for 10 min. and cut on a freezing microtome. The cuts are immersed in Ehrlich hematoxylin for 10 min., washed in water, treated with 1% aq. HCl to a light reddish color, transferred to tap water, where they again acquire a bluish shade, placed in 1% aq. eosin for 1 min., then in 80% alc., in 100% alc., in abs. alc. and in xylene. Best coloration is obtained with ultramarine and eosin. Elastic tissue is dyed by immersing the cuts in Weigert's fuchsin for 15-20 min., passing them through a series of alcs. of increasing strength and xylene, and applied to the slide with Canada balsam. A. A. Hochtluck

ASB 51.4 METALLURGICAL LITERATURE CLASSIFICATION

CABALANINA, V. G.

29

Influence of lime liquor on the microflora of raw hides  
 V. G. Babakina and K. S. Kutukova. *Central-Namk -  
 Pribludnostel. Inst. Aoshvevnoy Prom., Sbornik Rabot No. 6,  
 4 (19, 1935).* - The freshly prepd. lime liquor is sterile,  
 it becomes gradually contaminated with bacteria during  
 treatment of the hides. Among the bacteria thus intro-  
 duced into the liming and Na<sub>2</sub>S solns. were some varieties  
 of *Bact. halobium* and *Bact. vulgare*, which are destroyed,  
 and *Misc. albus*, *Misc. aureus* and *Bact. schroeterum*, which  
 remain in the soln. Normal raw material is not infected in  
 a liming vat contaminated with bacteria. Raw hides in-  
 fected with bacteria should be rapidly limed in the presence  
 of accelerators  
 A. A. Boehlingk

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

BC

Microscopic preparations from *Aspergillus oryzae*. V. G. Babakina and A. D. Zamiatina (*Microbiologia*, 1959, 4, 316-320).--The molds have the ability to depolimerize raw hides, and max. activity is obtained when the mold is grown on a medium made from wheat flour, peptone, glucose, and salts, and adjusted to pH 5-6. The prep. is stable and can be used as a bathing agent. J. N. A.

*Rec. Inst. Leather Industry*

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

FROM STRIBLINA	FROM BOKHINA
FROM STRIBLINA	FROM BOKHINA

BERNARD, J. S.

29

Investigating methods for saving pickling solutions and the possibility for their repeated use in small tanneries. V. G. Babakina, M. S. Lyuksenburger, K. S. Kutukova, A. F. Shlyapnikov and Shumakovskaya. *Leningrad. Vostochno-Asiatskiy Inst. A. K. Kherasimovich. Proc. NSO and Russ. No. 11, 120-11(1960)*. The repeated use of the pickle during 5-7 days at 25-30° leads to a gross contamination of the solution. The development of the bacteria is inhibited by adding antiseptics, the activity of which increases in the order: chlororesol, chlorophenol and  $\alpha$ -naphthol, each at a concn. of 0.025%. The oligodynamic properties of Ag can be utilized by filtering the spent

pickle through silver sand. The pickle should be filtered after using it 3 times.  $\beta$ -Naphthol can be introduced without further investigation, the introduction of chlorophenol and chlororesol will be possible after finding ways of decolorizing these compounds. A. A. Bochtlogk.

ASH 31.4 METALLURGICAL LITERATURE CLASSIFICATION



PROCEEDINGS AND PROPERTIES INDEX

NO. AND (1st COPY)

29

H

Oxyzone and its use in the leather industry. V. G. Babakina. *Leckiya Prom.* 5, No. 7, 8, 22-3 (1946). Oxyzone from steamed bran inoculated with the mycelia of *Aspergillus niger*, has various degrees of activity, depending on the temp. and humidity and on the selection of active strains of the fungus. Oxyzone can be used instead of oropon in the unhairing and softening of hides. The activity of oxyzone prepn. obtained from potato-wastes of the starch-sirup industry is 1.5-2.0 times that of the prepn. obtained from bran. The unhairing and softening with oxyzone in conjunction with  $\text{NaHSO}_3$  and  $\text{Na}_2\text{S}_2\text{O}_5$  are carried out at pH 5.2-6.0 and 35-50°C. the treatment does not affect the quality of wool obtained, and increases the yield of hair by removing it completely.

A 58-31.4 METALLURGICAL LITERATURE CLASSIFICATION

FROM SUBJECT	FROM SOURCE
L 0000 0 1 2 3 4 5 6 7 8 9	0 1 2 3 4 5 6 7 8 9
10 11 12 13 14 15 16 17 18 19	20 21 22 23 24 25 26 27 28 29
30 31 32 33 34 35 36 37 38 39	40 41 42 43 44 45 46 47 48 49
50 51 52 53 54 55 56 57 58 59	60 61 62 63 64 65 66 67 68 69
70 71 72 73 74 75 76 77 78 79	80 81 82 83 84 85 86 87 88 89
90 91 92 93 94 95 96 97 98 99	0 1 2 3 4 5 6 7 8 9

LABORATORY, I.S.

.29

Sodium fluosilicate - an antiseptic in leather production  
 V. G. Babakina. *Lezhasy Prom.* 1946, No. 9-10, 17-18  
 Storing raw leather preserved with Na<sub>2</sub>SiF<sub>6</sub> for 6 months  
 produced good results in spite of the exceedingly unfavour-  
 able conditions of storage (temp. 31°, humidity 80%).  
 Control samples deteriorated after 1.5 months.  
 W. R. Thom

ASB 55A - METALLOGICAL LITERATURE CLASSIFICATION

BALAKINA, V. G.

29

CA

Depilated hides. A. A. Averbukh, V. G. Balakina, B. I. Grubkhes, and M. S. Lyuksenburg. USSR *09.718*, Nov. 30, 1947. Raw hides are fermented in the presence of an alkali sulfite and sulfhydrate and NaOH. The depilated hide is then treated for several hrs. in an alk. bath, the pH of which is gradually raised from 7 to 12.5. The hides are then washed, neutralized, softened, and pickled at 30-35°. M. Hosh

Михал А, В. 1.

34045. Puti standartizatsii protsesa vyecheniya (gol'ya) lezhae p'rom-st',  
1989, No. 9, s. 15-16

30: Kuzhaya Istoris', Vol. 7. 195.

Technical patent: V. G. Babakina *Leather Perm*  
14, No. 2, 20-21(1954) -- Tech. (1954) was used success-  
fully as a leather softener. Addition of surfactants strongly  
improves its action. B. Z. Kamich

METELKIN, A.I.; BABAKINA, V.G., kand.biol.nauk

Use of ferments for the depilation of hides and skins and the softening of raw leather. Nauch.-issl. trudy TSNIKP no.30:59-64 '59. (MIRA 14:5)

(Leather)

BABAKINA, Vera Grigor'yevna; CHERNOV, N.V., doktor tekhn. nauk,  
prof., retsenzent; FENIKSOVA, R.V., doktor biol. nauk,  
retsenzent; PLEMYANNIKOV, M.N., red.; KNAKNIN, M.N., tekhn.  
red.; VINOGRADOVA, G.A., tekhn. red.

[Use of ferments in the manufacture of leather]Primenenie fer-  
mentov v proizvodstve kozhi. Moskva, Rostekhzdat, 1962. 239 p.  
(MIRA 15:12)

(Leather research)

(Fermentation)

BABAKINA, V.G.; METELKIN, A.I.; SUCHKOV, V.G.; KURAYTIS, S.A.; GOLUBEVA, S.K.

Method of leather processing; Soviet Certificate of Inventions  
No.143957. Kozh.-obuv.prom. 4 no.8:42 Ag '62. (MIRA 15:8)  
(Leather industry—Technological innovations)

BABAKOV, A., podpolkovnik, kand.istoricheskikh nauk

The Armed Forces of the U.S.S.R. are ready to defend their country.  
Komm.Vooruzh.Sil 1 no.2:78-86 Ja '61. (MIRA 14:9)  
(Russia--Armed Forces)

BABAKOV, A., podpolkovnik, kand.istoricheskikh nauk

Important condition for effective work. Komm. Vooruzh. Sil 2 no.4:  
55459 F '62. (MIRA 15:2)

(Russia--Armed forces--Political activity)

BABAKOV, A., podpolkovnik, kand.istoricheskikh nauk

Inevitability of the downfall of the capitalist system throughout  
the world. Komm. Vooruzh. Sil 3 no.8:73-81 Ap '63. (MIRA 16:5)  
(Capitalism) (Communism)

BOCHKAREV, Konstantin Stepanovich, general-mayor; PRUSANOV, Ivan Petrovich, polkovnik; BABAKOV, Aleksandr Aleksandrovich, polkovnik; ROMANOV, I.M., polkovnik, red.; SOLOMONIK, R.L., tekhn.red.

[The program of the CPSU on the defense of the socialist fatherland] Programma KPSS o zashchite sotsialisticheskogo Otechestva. Moskva, Voenizdat, 1963. 141 p.

(MIRA 16:11)

(Russia--Military policy)

БАБАЕВ, А., подполковник, кандидат исторических наук

V.I. Lenin on the military organization of the proletarian state.  
Further development of Lenin's ideas on the defense of the social-  
ist Fatherland in the Program of the CPSU. Komm. Voenuzh. SII 5  
no.19:70-77 G 164. (MIRA 17:12)

BABAKOV, A., polkovnik, kand. istoricheskikh nauk

Growth of the role of the CPSU in the development of Soviet  
society. Komm. Vooruzh. Sil 46 no.19:9-18 0 '65.

(MIRA 18:12)

I 44206-66

ACC NR: AN6010534 (A,N) SOURCE CODE: UR/9008/65/000/287/0002/0003

AUTHOR: Rybnikov, V.; Babakov, A. (Colonel)  
(Colonel)

ORG: none

25  
B

TITLE: Rocket nuclear war and policy

SOURCE: Krasnaya zvezda, 07 Dec 65, p. 2, col. 1-7, p. 3, col. 1-4

TOPIC TAGS: military science, nuclear war, ~~military strategy~~, military tactics  
*political thought, military policy*

ABSTRACT: The authors discuss the Marxist-Leninist idea of war, which is considered to be primarily a continuation of political action on another plane and which does not exclude other means of struggle. It is a manifestation of class conflict, even if it is used as a weapon of national policy such as a national war of liberation. War is therefore not to be identified exclusively with military action, but is an extremely complex phenomenon, especially under nuclear conditions. If a nuclear war is initiated, political activity will not cease nor even decrease. Contradictions between the socialist and imperialist camps are the main cause of the present world political situation and will affect the course of hostilities. General

Card 1/2

L 4420: -56

ACC NR: AN6010534

problems of strategy will be determined by the political objectives of nuclear war. The possibilities of political influence on military activities and the outcome of the war will increase enormously, while the time factor will decrease. Strategic objectives of nuclear war will begin to be realized from the very start of hostilities. The belligerent governments will then have to face urgent political and economic problems and problems of morale and endurance in the army and the people. [GC]

SUB CODE: 05, 15/ SUBM DATE: none/

Card 2/2 JS



SHANINA, T.M.; BABAKOV, A.A.; NEGREYEV, V.F.; TUFANOV, D.G.; GADZHIYEVA,  
K.G.

Steel corrosion in offshore petroleum industries. Trudy Gipromor-  
nefti no.1:13-56 '54. (MIRA 9:12)  
(Steel-Corrosion)

*Babakov, A. A.*  
USSR/Chemistry - Corrosion

FD-973

Card 1/1            Pub. 50 - 16/19

Authors        :    Tseytlin, Kh. L., Kurcheninova, N. K., Babitskaya, S. M. Babakov, A. A.

Title            :    The corrosion of steel by hot solutions of caustic alkali under pres-  
                  :    sure

Periodical    :    Khim. prom., No 7, 438-440 (54-56), Oct-Nov 1954

Abstract       :    In the experimental work described, determined the resistance of 7  
                  :    grades of steel to corrosion by hot solutions of caustic alkali under  
                  :    pressure. The type of corrosion studied leads to cracking of the  
                  :    steel. Four tables.

Institution:    Institute of Organic Intermediates and Dyestuffs imeni K. Ye. Voros-  
                  :    hilov.

BABAKOV, A. A.

② 4  
Corrosion-resistant steel in viscose manufacture. A. A. Babakov and G. V. Tulaeva. *Tekstil. Prom.* 14, No. 2, 51-3 (1954).—Resistance of various grades of steel to H<sub>2</sub>SO<sub>4</sub>, a major component in plasticization and pptn. baths in viscose manuf., was detd. by immersing the samples for 240 hrs. at room temp. and for 7 hrs. at 45° in 5, 10, and 20% soln. of tech. H<sub>2</sub>SO<sub>4</sub> and noting the loss in wt. and appearance.  
Elisabeth Barabash

AF-5-51

Identical type machine - isolated metal skin in  
noisy, stainless  
(Steel, stainless - Corrosion)

BABAKOV, Aleksy Alekseyevich; KLINOV, I.Ya., redaktor; AYZENSHTAT, I.I.,  
redaktor; KORNEYEVA, V.I., tekhnicheskiy redaktor

[Stainless steel, properties, and chemical stability in various  
corrosive media] Nerzhavayushchie stali svoystva i khimicheskaya  
stoikost' v razlichnykh agressivnykh sredakh. Pod red. I.IA. Klinova.  
Moskva, Gos. nauchno-tekhn. izd-vo khim. lit-ry, 1956. 129 p.  
(Korrosia v khimicheskikh proizvodstvakh i sposoby zashchity, no.8)  
(Corrosion and anticorrosives) (MIRA 9:12)

BABAKOV, A. A.

6(4E24)

Very strong of steel resistant to [unclear] [unclear]

EM  
MT  
P

133-6-24/33

AUTHORS: Babakov, A.A., Zhadan, T.A., Danilin, V.A., Bakuma, S.F.,  
Antipov, K.I., Kul'kova, M.N. and Kupryakhina, S.Z.

TITLE: An improvement in the technology of production of high-  
chromium plates. (Uлучsheniye tekhnologii proizvodstva  
vysokokhromistogo tolstogo lista).

PERIODICAL: "Stal'" (Steel), 1957, No.6, pp.555-559 (USSR).

ABSTRACT: Optimum conditions of rolling and subsequent heat treat-  
ment of plates from steels X25T, X28 and X28 with nitrogen,  
under which the metal would attain mechanical properties  
satisfying TY5227-55 and good quality cutting and straight-  
ening properties in cold state, were investigated. The  
following participated in the work: Engineers B.Z.Kononov,  
V.V.Turitsyn, P.N.Sporyshkov, A.P.Okenko ("Krasnyy Oktyabr")  
and technician V.I.Shashina (TsNIChM). It was found that  
in order to obtain steel plates of required properties  
slabs should be rolled in a temperature range from 980 to  
1000 C - 720 to 800 C with cooling of plates in air.  
Thermal treatment: a preliminary annealing at 760-780 C for  
12-16 hours followed by hardening of each plate (individ-  
ually) in water after heating the metal to the same tem-  
perature (soaking time 3 min per 1 mm thickness of the  
plate). Chemical composition of steel from the heats

Card 1/2

An improvement in the technology of production of high-chromium plates. (Cont.) 133-6-24/33

investigated is given in Table 1, mechanical properties of plates tested in Tables 2 to 6 and some examples of microstructure obtained under various conditions of processing in Figs. 2 to 4.

There are 6 tables and 4 figures.

ASSOCIATION: TsNIChM and "Krasnyy Oktyabr'" Works. (TsNIChM i zavod "Krasnyy Oktyabr'").

AVAILABLE: Library of Congress  
Card 2/2

Справочник

133-7-17/28

AUTHOR: Babakov, A.A., Candidate of Technical Sciences, Sabinin, A.A. and Sinitsyn, I.P. (deceased), Engineers.

TITLE: Pickling of Stainless Steels (Travleniye nerzhavayushchikh staley)

PERIODICAL: Stal', 1957, No.7, pp. 631 - 636 (USSR)

ABSTRACT: The problem of removing scale from hot-rolled, and subsequently annealed at high temperatures, stainless chromium steels was investigated. As a first step, the composition of scale on steels containing various percentages of chromium and submitted to various modifications of heat treatment was studied. Chemical, petrographic, X-ray and electronographic methods were used for these studies. This work was carried out by G.A. Kokorin, R.M. Rozenblyum, A.G. Ryl'nikova and K.K. Sekiro. The results obtained are shown in Table 1 and Figs. 1 and 2. As the second stage, laboratory experiments on heat treatment and pickling of steels (chemical compositions are given in Table 2) were carried out. For pickling individual acids and mixtures of sulphuric, hydrochloric, nitric, phosphoric and hydrofluoric acids with and without additions of their sodium salts at 60 - 70 °C were tested. However, the results obtained were not satisfactory. In further investigations, an attempt was made to modify the structure of scale during its formation

Card1/3

## Pickling of Stainless Steels.

133-7-17/28

during annealing. Coating with aqueous solutions of NaCl, NaOH, Na<sub>2</sub>CO<sub>3</sub>, NaNO<sub>3</sub>, NaF, etc. were tested individually and in mixtures. The best results were obtained by coating with a saturated solution of NaCl at 90 °C (Fig.4, Table 3). In another series of experiments individual annealing of steel specimens (plates) without coatings was tested. The scale formed was easily removed from steels 1X13, X17 and X28 but not from steels 3X13 and 4X13 (Fig.5). As the best action of salt coatings was obtained with individual annealing (each plate separately), in order to check on the possibility of applying this method in practice, the influence of various methods of heating and soaking on the mechanical properties of steel were tested. The results are shown in Fig.6. Satisfactory results obtained on individual annealing of plates at 780 °C with a soaking time of 2 minutes per 1 mm of the plate thickness. In conclusion, it is stated that the composition of scale on steels 1X13 - 4X13, X17, X25 and X28 is Cr<sub>2</sub>O<sub>3</sub>, FeO. Cr<sub>2</sub>O<sub>3</sub> and iron oxides mainly in the form of Fe<sub>3</sub>O<sub>4</sub>. In the upper layers of scale Fe<sub>2</sub>O<sub>3</sub> was found. The internal zone directly touching the metal consists of Cr<sub>2</sub>O<sub>3</sub>(FeO·Cr<sub>2</sub>O<sub>3</sub>),

Card2/3

Pickling of Stainless Steels.

133-7-17/28

middle zone of  $Fe_3O_4$  and external zone of  $Fe_2O_3$ . With increasing chromium content of steel the thickness of the zone of  $Cr_2O_3$  increases with decreasing  $Fe_3O_4$  zone, while  $Fe_2O_3$  zone remains the same. Thermal treatment of individual plates preliminarily coated with a solution of NaCl, or NaCl with 5%  $NaNO_3$  and short soaking time, facilitated the removal of scale. The use of salt coatings considerably increased the speed of pickling of stainless steels 1X13-4X13, X17, X25, X28, X23H18, X18H12M2T and X18H12M3T, as well as simplifying and cheapening the process. There are 3 tables, and 6 figures.

ASSOCIATION: TsNIChM and "Krasnyy Oktyabr'"

AVAILABLE: Library of Congress.

Card 3/3

ZOTOVA, Ye.V.; BABAKOV, A.A.

Searching for steels that are stable in nitrosulfuric acid with  
a low nitric acid content. Zhur.prikl.khim. 30 no.12:1795-1799  
D '57. (MIRA 11:1)  
(Steel--Corrosion) (Sulfuric acid) (Nitric acid)

SOV/64-59-4-19/27

18(0)  
AUTHOR:

Babakov, A. A., Candidate of Technical Sciences

TITLE:

Stainless Steels in Plentiful Supply  
(Nedofitsitnyye nerzhavoyushchiye stali)

PERIODICAL:

Khimicheskaya promyshlennost', 1959, Nr 4, pp 70-74 (USSR)

ABSTRACT:

Detailed explanations concerning the properties and the production as well as the application possibilities of different Russian steel types are given. Among other types the following steels are mentioned: the chromium steels Kh 17 (17% Cr), Kh 28 (28% Cr), the chromium steels containing titanium Kh17T and Kh25T, chromium steels with nitrogen additions Kh28A (0.18-0.23% nitrogen) and nickel additions Kh28NA (1-2% Ni and 0.18-0.23% nitrogen), the stainless chromium steels OKh13, Kh17, 1Kh13, the chromium steels Kh18N9, 1Kh18N9T, the chromiummanganese nickel steels Kh13G9N5 (EI-100) as substitute for the steels 1Kh18N9 and 2Kh18N9. The chemical composition of the steels mentioned in the title and their mechanical properties (Table 4) are given. There are also separate tables concerning the mechanical properties of the steels Kh14G14N and Kh14G14N3T after thermal treatment (Table 1). Finally the mechanical

Card 1/2

Stainless Steels in Plentiful Supply

SOV/64-59-4-19/27

properties of the steel Kh17N2 (Table 2) and the mechanical properties of some types of test steels (OKh21N5T (EP-53), 1Kh21N5T (EI-811), and Kh21N6M2T (EP-54)) (Table 3) are given. In conclusion a survey of the characteristic stainless steel types mentioned in the title, and special directions for their application are given. There are 4 tables.

ASSOCIATION: TsNIIchernet (TsNIIchernet)

Card 2/2

154000000

Technological aspects of metal-chemical corrosion  
Metallurgical aspects of metal-chemical corrosion  
(Incorporating the results of the 1958-1960  
) 95 p. 1,000 copies printed.

Ed.: I.A. Lerts, Candidate of Technical Sciences; R. of Publicist Name:  
I.I. Lutschenko, Engineer; Tech. Ed.: V.D. Kludsk, Member of the  
Academy of Sciences of the USSR; V.Y. Kuznetsov, Engineer; Editorial Board: I.A. Lerts, Candidate of Technical Sciences  
(Chairman); V.F. Barinov, Candidate of Technical Sciences; V.M. Kuznetsov,  
Candidate of Technical Sciences; and A.V. Turonov, Candidate of Technical  
Sciences.

NOTE: This collection of articles is intended for technical personnel concerned  
with problems of corrosion of metals.

CONTENTS: The collection contains discussions of intercrystalline corrosion of  
stainless steels and stress corrosion of carbon steels, low-alloy and austenitic  
steels, and light-weight and porous alloys. The tendency of steels of  
various composition and types to corrode under certain conditions is discussed  
and the nature of corrosion and erosion cracking is analyzed. In particular,  
the nature of the erosion is analyzed by radiographic methods,  
the nature of which are noted.

II. INTERCRYSTALLINE CORROSION OF STAINLESS STEELS

Chernik, E. I., Candidate of Technical Sciences, Ph.D., Vol. 1960, and Ph. S.  
Kozlov, Engineer, Effect of Size of Grain on the Tendency of INCONEL  
Steel to Corrode Intercrystalline Corrosion 27

Plumb, J. P., Candidate of Technical Sciences, and G. P. Lerts,  
Candidate of Technical Sciences, Effect of the Tendency of INCONEL  
Steel to Corrode Intercrystalline Corrosion 45

Wagner, S. J., and M. N. Kuznetsov, Candidate of  
Technical Sciences, Intercrystalline Corrosion Concentrated  
Along the Fusion Line of Welded Joints of the 18-8 Type  
Stainless Steels ("Tully" Type Corrosion) 59

Lerts, I. A., and A. V. Turonov, Effect of the Electric Barrier  
on Intercrystalline Corrosion 71

Perlovskiy, Ye. A., Candidate of Technical Sciences, L. P. Kozlov,  
Candidate of Technical Sciences, and Ye. S. Kuznetsov,  
Candidate of Technical Sciences, Effect of the Heat Treatment of Some Stainless Steels on Their  
Tendency toward Intercrystalline Corrosion 79

Chernik, E. I., Engineer, Intercrystalline Anodic Corrosion of  
Austenitic High-Strength Steels 92

Shcherbakov, G. I., Candidate of Technical Sciences, and Ye. S. Kuznetsov,  
Candidate of Technical Sciences, Intercrystalline Corrosion and Corrosion Cracking of Stainless  
Steel-Alloy Austenitic Steels 110

Kozlov, G. P., Engineer, Tendency of Chromium-Nickel-Molybdenum-Copper  
Steels toward Intercrystalline Corrosion 126

Shcherbakov, G. I., Candidate of Technical Sciences, Development of Two-Phase  
Stainless Steels with Increased Resistance to Intercrystalline Corrosion  
Intercrystalline Corrosion 145

Lerts, I. A., Candidate of Technical Sciences, Note on the Problem of the  
Cause of Stressless Steel Intercrystalline Corrosion 148

Vodopivec, M., Engineer, and S. D. Ivanov, Doctor of Chemical Sciences,  
Investigation of Intercrystalline Corrosion of Chromium-Nickel  
Austenitic Steels by Measuring the Internal Friction 152

2



S/184/60/000/004/001/021  
A109/A029

AUTHORS: Babakov, A.A., Candidate of Technical Sciences; Zhadan, T A.,  
Graduate Engineer

TITLE: Use of Non-Deficient High-Chromium Stainless Steels <sup>18</sup>

PERIODICAL: Khimicheskoye Mashinostroyeniye, 1960, No. 4, pp. 2 - 4

TEXT: <sup>18</sup> The authors discuss the increased demand for high-alloyed 1X18H9T (1Kh18N9T) and 1X18H12M2T (1Kh18N12M2T) stainless steels and the necessity of obtaining full-value substitutes containing little or no deficient nickel. In this connection high-chromium X17T (Kh17T), X25T (Kh25T) and X28 (Kh28) ferrite steels are of particular interest. The production of 5 - 10 mm sheets of the aforementioned stainless steels presented difficulties, therefore their fatigue strength and plasticity were subjected to detailed examination described in this article. As there is a close connection between brittle fracture of thick steel sheets and their grain coarseness, the possibility of slowing-down the recrystallization <sup>18</sup> during hot rolling was considered. The mechanical properties of these steels were investigated at varying temperatures. A relatively rapid decrease of stress resistance was noted. Their tensile strength limit at 900°C was similar to that

Card 1/7

Use of Non-Deficient High-Chromium Stainless Steels

S/184/60/000/004/001/021  
A109/A029

of austenitic steel at 1,200°C, whereas contraction and expansion characteristics were higher. As a result of these tests ferrite steel slabs are now rolled at 1,000°C which slows down the crystallization process. In spite of lower temperatures, stress resistance remains unchanged and the rolling-mill engine load does not exceed the permissible limits. Recently obtained heat processing conditions to Kh17T and Kh25T thick steel sheets are: preheating 780 - 820°C, heating time 3 min/mm and water cooling. By improved methods fine-grained, high-plastic steel sheets were produced which can be cold cut, drawn and rolled. Cast Kh28 high-chromium steel without titanium has a pronounced macrostructure. Low-temperature rolling and subsequent double thermal processing at 780°C for 10 - 15 h improved its plastic properties though its resilience remained low. This type of processing can be applied to other ferritic metals of more than 10 mm thickness. The microstructure of ferrite steels after rolling and heat processing is shown in Figure 3. A table shows the chemical composition and mechanical properties of ferrite chromium steels after thermal processing. Wider assimilation of these steels depends on improved production methods and on the development of reliable welding methods. Most favorable welding methods obtained by tests carried out by NIKhIMMASH and GIAP are mentioned in Reference 3. High-chromium steels are suited for the production of welded chemical equipment.

Card 2/7

Use of Non-Deficient High-Chromium Stainless Steels

S/184/60/000/004/001/021  
A109/A029

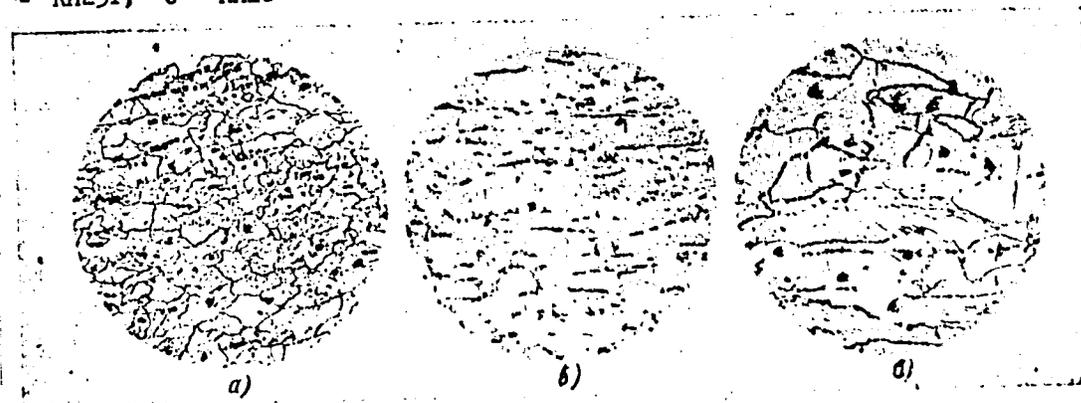
ating at static loads in acetic, phosphoric and nitric acids, alkalies, etc. They are already successfully used in various plants: Rustavskiy azotnotukovyy zavod (Rustavi Nitrate Fertilizer Plant), Uralkhimmash, Alchevskiy koksokhimi-cheskiy zavod (Alchevsk Coke Chemical Plant), Moskovskiy avtorefrizheratornyy zavod (Moscow Refrigerator Car Plant), Moscow "Ideal" Plant, Bolshevskiy mashinostroitel'nyy zavod (Bolshevo Machine Building Plant) and others. It is pointed out that ferrite steels, particularly the Kh17T and Kh25T grades will be widely used in chemical machine building. There are 3 figures, 1 table and 3 Soviet references.

Card 3/7

Use of Non-Deficient High-Chromium Stainless Steels

S/184/60/000/004/001/021  
A109/A029

Figure 3. Microstructure of Steels in the State of Delivery (X 100): a - Kh17T;  
b - Kh25T; c - Kh28



Фиг. 3. Микроструктура сталей в состоянии поставки (X 100):  
а - X17T; б - X25T; в - X28.

Card 4/7

S/184/60/000/004/001/021  
A109/A029

Use of Non-Deficient High-Chromium Stainless Steels

Chemical Composition and Mechanical Properties of Kh17T, Kh25T and Kh28 Steels  
in the State of Delivery After Thermal Treatment

Steel Grade	Number of Smelting	Content of Elements in %					Thickness of Sheet in mm
		C	Mn	Si	Cr	Ti	
Kh17T	1835	0.07	0.34	0.56	16.5	0.54	6
							8
							10
Kh25T	2890	0.07	0.50	0.54	16.8	0.50	6
	1880	0.09	0.37	0.65	16.8	0.50	5
	1888	0.08	0.34	0.58	24.1	0.58	6
	1283	0.07	0.50	0.65	24.5	0.65	6
	2991	0.08	0.31	0.75	24.1	0.39	10
Kh28	1887	0.05	0.31	0.64	27.4	-	10
	1606	0.09	0.37	0.48	27.0	-	5



Card 5/7

S/184/60/000/004/001/021

A109/A029

Use of Non-Deficient High-Chromium Stainless Steels

Steel Grade	Mechanical Properties						Magnitude of the Grain
	$\sigma_b$ in kg/mm <sup>2</sup>	$\sigma_s$ in kg/mm <sup>2</sup>	$\delta$ in %	$\varphi$ in %	$a_k$ in kg/cm <sup>2</sup>		
					in transverse direction	in longitudinal direction	
Kh17T	50.5	37.0	27.0	47.0	8.9	13.1	5
	51.0	36.0	22.0	48.0	11.2	13.6	5
	50.5	36.0	28.0	50.0	5.5	14.8	5
Kh25T	51.5	36.0	29.5	59.5	-	8.0	4 - 5
	50.0	33.7	24.4	-	-	11.5	5 - 6
	50.5	30.7	25.5	-	-	11.7	5
	61.0	-	22.0	-	9.7	10.8	4 - 5
	50.0	-	28.0	-	6.0	13.3	4
	53.0	-	22.0	-	6.8	10.1	5
Kh28	55.0	-	26.0	-	0.5	1.0	3 - 4
	55.0	-	30.0	-	0.8	0.6	3 - 4
	52.0	-	23.5	-	0.6	0.7	3 - 4

Note: In Kh28 steel of both smeltings cracks are formed at cold bending to

Card 6/7

Use of Non-Deficient High-Chromium Stainless Steels

S/184/60,000/004/001/021  
A109/A029

180°C (until contacting of the sides); in the remaining steels of all smeltings  
cracks were not detected.



Card 7/7

BABAKOV, A.A.; TUFANOV, D.G.

Corrosion of steels under atmospheric conditions. Zhur. prikl. khim.  
33 no.6:1334-1340 Je '60. (MIRA 13:8)  
(Steel--Corrosion)

BABAKOV, A.A.; ULANOVSKIY, I.R.; TUFANOV, D.G.; KOROVIN, Yu.M.

Corrosion testing of stainless steels in sea water. Trudy Inst.  
fiz.khim. 8:345-353 '60. (MIRA 14:4)

(Steel, Stainless--Corrosion) (Sea water)

BARAKOV, A.A., kand.tekhn.nauk; ZHADAN, T.A., inzh.

Ways of increasing the plasticity Kh28 steel. Sbor. trud. TSHIICHM  
no.17:163-183 '60. (MIRA 13:10)  
(Chromium steel--Metallurgy)

18 8300

S/081/62/000/012/031/063  
B166/B101

AUTHORS: Babakov, A. A., Tufanov, D. G.

TITLE: Pitting corrosion of chromium stainless steels

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1962, 346, abstract  
121139 (Sb. tr. Tsentr. n.-i in-t chernoy metallurgii,  
no. 17, 1960, 184-203)

TEXT: It is established that steel X17H2 (Kh17N2) alloyed with 1-2% Mo has the highest corrosion resistance when tested in the laboratory and under natural conditions (in the Caspian Sea). [Abstracter's note: Complete translation.]

JB

Card 1/1

S/137/61/000/010/023/056  
A006/A101

AUTHORS: Babakov, A.A., Kareva, Ye.N.

TITLE: Stabilizing annealing and its effect on the corrosion resistance of 1X18H9T (1Kh18N9T) steel

PERIODICAL: Referativnyy zhurnal. Metallurgiya, no. 10, 1961, 40, abstract 10D274 ("3b. tr. Tsentr. n.-i. in-t chernoy metallurgii", 1960, no. 17, 204 - 227)

TEXT: The authors studied the effect of the temperature and duration of stabilizing annealing, and different variants of quenching on the mechanical properties, microstructure, the amount of Ti carbides in the steel, and the corrosion resistance of 1Kh18N9T steel from 4 heats. For comparison, 0X18H9 (0Kh18N9) steel was also investigated. The mechanical properties of hot and cold rolled 1Kh18N9T steel after stabilizing annealing at 850-900°C during 1 to 5 hours are the same as after quenching. Stabilizing annealing reduces the proneness of steel to grain growth in the welding zone and reduces the effect of heating in the dangerous temperature range. Steel quenching from temperature of >1,100°C entails the dissolving in austenite of Ti carbides, which entails a

Card 1/2

Stabilizing annealing and its effect ...

S/137/61/000/010/023/056  
A006/A101

considerable reduction of the effective Ti amount, bound in Ti C. Annealing at 800 and 650°C after high-temperature quenching does not bring about sufficient C bond in Ti carbides. 1Kh18N9T steel, containing Ti at the lower limit or containing  $\leq 0.06\%$  C after different heat treatment conditions, is not subjected to intercrystalline corrosion during tests by the A-1 or A-2 method (GOST 6032-51). During tests in 58% HNO<sub>3</sub>, quenching from elevated temperatures and additional tempering at 800 and 650°C produce an increase of total and intercrystalline corrosion. Corrosion resistance of 1Kh18N9T steel in 58% HNO<sub>3</sub> at boiling temperatures is equal after quenching from high temperatures and after different stabilizing annealing. Tempering of 1Kh18N9T steel at 650°C for 2 - 10 hours after stabilizing annealing does not reduce corrosion resistance. The content of C, not bound into carbides, has a greater effect on corrosion resistance of 1Kh18N9T steel in HNO<sub>3</sub> than during tests by the A-2 method. ✓

M. Shapiro

[Abstracter's note: Complete translation]

Card 2/2

S/081/61/000/020/053/089  
B102/B147

AUTHORS: Babakov, A. A., Tufanov, D. G., Sabinin, A. A.

TITLE: Corrosion of steels in sea water

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 261, abstract  
20I164 (Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, no. 17,  
1960, 228 - 246)

TEXT: The corrosion rate of steels under maritime conditions follows  
certain rules depending on their composition and structure. Carbon and  
low-alloy steels were found to corrode in sea water and sea air at nearly  
the same rate. [Abstracter's note: Complete translation.]

Card 1/1

S/081/61/000/020/054/089  
B102/B147

AUTHORS: Babakov, A. A., Tufanov, D. G.

TITLE: Corrosion of steels in mine water

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 261, abstract  
20I165 (Sb. tr. Tsentr. n.-i. in-t chernoy metallurgii, no. 17,  
1960, 311 - 321)

TEXT: 1X13 (1Kh13) steel, recommended for the manufacture of equipment,  
was found to be subject to the aggressive action of mine water. [Abstracters  
note: Complete translation.]

Card 1/1